

Model: V275C2

Engine: VOLVO, TAD734GE

Alternator: LEROY SOMER, LSA462L6

Specifications

- Compliant with stage 2 of the European pollutant emissions directive
- Electronic governor
- Mechanically welded chassis with anti-vibration suspension
- Power circuit breaker
- Radiator for wiring T° of 50°C [122°F] max with mechanical fan
- Protective grille for fan and rotating parts
- 9dB(A) silencer supplied separately
- Charged DC starting battery with electrolyte
- 24 V charging alternator and starter
- Supplied with oil and coolant -30°C
- User manual and commissioning guide



Generator Ratings

Voltage	Power ESP kW/kVA	Power RRP kW/kVA	Standby Amps	Dimensions	Weight
415/240	211 / 264	192 / 240	367	Length: 2900 Width: 1300 Height: 1660	2200kg Net 2590kg Gross
400/230	220 / 275	200 / 250	397		
380/220	220 / 275	200 / 250	418		
240/120	211 / 264	192 / 240	635		
230/115	220 / 275	200 / 250	690		
220/110	220 / 275	200 / 250	722		
200/115	220 / 275	200 / 250	794		

RRP: Prime Power is available for an unlimited number of annual operating hours in variable load applications, in accordance with ISO 8528-1. A 10% overload capability is available for a period of 1 hour within 12hour period of operation, in accordance with ISO 3046-1.

ESP: The standby power rating is applicable for supplying emergency power in variable load applications in accordance with ISO 8528-1. Overload is not allowed.

Terms of Use: Standard reference conditions 25 ° C Air Inlet Temp, 100m A.S.L 60% relative humidity. All engine performance data based on the above mentioned continuous ratings.

Canopy Version

Type	dB(A)@7m	Dimensions	Weight	Tank
M227	67.8	Length: 4004 Width: 1380 Height: 2145	3130kg Net 3520kg Gross	390 L
M227-DW	67.8	Length: 4056 Width: 1380 Height: 2340	3850kg Net 4720kg Gross	950 L

All units supplied with canopy as standard except when requested.

Engine Data

Manufacturer/Model	VOLVO TAD734GE, 4-strokes, Turbo
Cylinder arrangement	6 x L
Displacement	7.15L [436.3C.I.]
Bore and stroke	108mm [4.3in.] X 130mm [5.1in.]
Compression ratio	17.1 : 1
Rated RPM	1500 Rpm
Piston speed	6.5m/s [21.3ft./s]
Max. standby power at rated RPM	241kW [323BHP]
Frequency regulation, steady state	+/- 0.5%
BMEP	28bar [406psi]
Governor: type	ELEC

Exhaust System

Exhaust temperature	550°C [1022°F]
Exhaust gas flow	557L/s [1180cfm]
Max back pressure	750mm CE [30in. WG]

Fuel System

110% (Stand by power)	59.6L/h [15.7gal/hr]
100% (of the Prime Power)	53.4L/h [14.1gal/hr]
75% (of the Prime Power)	42.6L/h [11.3gal/hr]
50% (of the Prime Power)	30.5L/h [8.1gal/hr]
Total fuel flow	300L/h [79.3gal/hr]

Oil System

Total oil capacity w/filters	29L [7.7gal]
Oil Pressure low idle	1bar [14.5psi]
Oil Pressure rated RPM	4.5bar [65.2psi]
Oil consumption 100% load	0.01L/h [0.003gal/hr]
Oil capacity carter	24L [6.3gal]

Thermal balance 100% load

Heat rejection to exhaust	177kW [10064Btu/mn]
Radiated heat to ambient	26kW [1478Btu/mn]
Heat rejection to coolant	129kW [7335Btu/mn]

Air intake

Max. intake restriction	300mm CE [12in. WG]
Engine air flow	272L/s [576cfm]

Coolant system

Radiator & engine capacity	[N/A]
Max water temperature	103°C [217°F]
Outlet water temperature	93°C [199°F]
Fan power	9.2 kW
Fan air flow w/o restriction	4.8m ³ /s [10172cfm]
Available restriction on air flow	20mm CE [0.8in. WG]
Type of coolant	Glycol-Ethylene
Thermostat	83-95 °C

Emissions

PM	0.049 g/KW.h
CO	0.350 g/KW.h
Nox	5.014 g/KW.h
HC	0.079 g/KW.h

Alternator Specifications

Manufacturer/Type	LEROY SOMER (LSA462L6)
NUMBER OF PHASE	3
POWER FACTOR (Cos Phi)	0.8
ALTITUDE	< 1000 m
OVERSPEED	2250 rpm
POLE: NUMBER	4
EXCITER TYPE	SHUNT
INSULATION: CLASS, TEMPERATURE RISE	H / H
VOLTAGE REGULATOR	R230
SUSTAINED SHORT CIRCUIT CURRENT	
TOTAL HARMONICS (TGH/THC)	< 2.5%
WAVE FROM : NEMA = TIF- TGH/THC	< 50
WAVE FROM: CEI = FHT - TGH/THC	< 2%
BEARING: NUMBER	1
COUPLING	Direct
VOLTAGE REGULATION 0 TO 100% LOAD	+/- 0.5%
RECOVERY TIME (20% VOLT DIP) MS	500 ms
SkVA WITH 90% OF NORMAL SUSTAINED VOLTAGE (AT 0.4PF)	[N/A]

Other Alternator Data

CONTINUOUS NOMINAL RATING @ 40° C	250 kVA
STANDBY RATING @ 27° C	275 kVA
EFFICIENCIES @ 4/4 LOAD	92.4 %
AIR FLOW	0.43m ³ /s [911.11cfm]
SHORT CIRCUIT RATIO: 50 (Kcc)	0.41
DIRECT AXIS SYNCHRO REACTANCE UNSATURATED (Xd)	327 %
QUADRA AXIS SYNCHRO REACTANCE UNSATURATED (Xq)	196 %
OPEN CIRCUIT TIME CONSTANT: 50 (T'do)	2105 ms
DIRECT AXIS TRANSIENT REACTANCE SATURATED (X'd)	15.5 %
SHORT CIRCUIT TRANSIENT TIME CONSTANT (T'd)	100 ms

Other Alternator Data Continued

DIRECT AXIS SUBTRANSIENT REACTANCE SATURATED (X'd)	9.3 %
SUBTRANSIENT TIME CONSTANT (T'd)	10 ms
QUADRA AXIS SUBTRANSIENT REACTANCE SATURATED (X'q)	11.5 %
ZERO SEQUENCE REACTACE UNSATURATED (X ₀)	0.7 %
NEGATIVE SEQUENCE REACTANCE SATURATED (X ₂)	10.4 %
ARMATURE TIME CONSTANT (T _a)	15 ms
NO LOAD EXCITATION CURRENT (i ₀)	1 A
FULL LOAD EXCITATION CURRENT (i _c)	4 A
FULL LOAD EXCITATION VOLTAGE (u _c)	34 V
RECOVERY TIME (DELTA U = 20% TRANSITOIRE)	500 ms
MOTOR START (DELTA = 20% PERM. OR 50% TRANS.)	462 kVA
TRANSIENT DIP (4/4 CHARGE) - PF : 1.8AR	15.9 %
NO LOAD LOSSES	3.69kW [3.69Kw]
HEAT REJECTION	16.4 kW